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Instructional Strategies to Increase Motivation, Close the Achievement Gap, and Help Students Reach Their Potential: A Review of Literature

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Introduction

Closing the achievement gap between African, Native and Hispanic Americans and their European and Asian American counterparts has been a concern for decades. Recently, the persistence of this issue has become more pressing due to several factors. First, high stakes accountability testing places demands on students to demonstrate mastery of material across disciplines in order to successfully complete high school. Second, some states have already reported an increased dropout rate when students feel that they cannot pass the tests or will be retained in their grade level (Clark, et al., 2000). Third, the society's economic structure in the new millennium presents fewer options for poorly educated workers than perhaps at any time in our history. Fourth, the impact of citizens ill equipped to contribute to society through the work force tends to lay heavy costs in terms of future welfare aide or even incarceration. California, for example, projects the number of prisons they need to build by using the states fourth grade reading scores (Cushman, 1998). Finally, a democracy demands an educated populace.

The primary focus of this study looks at how motivation and instructional strategies may reduce the achievement gap for middle and high school students. However, though improving teaching strategies and student teacher relationships is vital, it is clear from the literature that improving classroom dynamics alone is no silver bullet. Therefore, this review provides an overview of the achievement gap literature on four primary levels of influence: 1) society, 2) schools and their communities, 3) family, 4) the classroom. Motivation is an integral facet of instructional strategies that have been shown to have a positive impact on student learning. Therefore, motivational techniques

are interwoven with the classroom section. A review of basic motivational theory is presented in the final section of this review.

Society

Perhaps the most troubling notion of the impact of society on the achievement levels of students was from Howard Gardner's observation that all we really had to know to predict a student's high school completion and future income was his zip code (Evans, 2005). Students at risk of not completing high school, many of whom drop out between eighth and ninth grade, tend to come from high poverty neighborhoods, have only one parent in the home, have parents with low educational attainment, and live in high poverty states. Hispanics, Blacks, and Native Americans are over-represented nationally in terms of poverty, underachievement, dropping out, and standardized test scores below their European and Asian American counterparts. Socioeconomic status (SES) is a factor in the achievement gap worldwide and presents even larger gaps in some other countries (Rotberg, 2005).

Internationally, the number of books in the home correlates with literacy attainment. Literacy, of course, is imperative in passing middle and high school level achievement tests. Standardized tests tend to be reading centered, so students who are behind grade level in reading for any reason may not be able to accurately display their actual learning.

Readiness differentials between low income and middle class kindergartners can be as high as 1:4; in other words, low income students may reach kindergarten with a 5,000 word vocabulary and their middle class counterparts may enter kindergarten with as much as a 20,000 word vocabulary. Middle class parents tend to talk with their

children more, read to them more, and middle class children are more likely to attend preschool (Evans, 2005). Low income children tend to progress during the school year at a pace similar to middle class students, but experience greater loss during the summer months.

Though poverty is a major player in the achievement gap story, the gap is not limited to SES. Race matters. Studies that control for wealth show a persistence in Hispanic, Native and African American test scores below those of their European and Asian peers (Evans, 2005). The achievement gap narrows when racial segregation is absent (Singham, 2003). America's schools are more segregated today than in the early 1970s, a fact that has long been lamented by those who understand the negative impact of racial isolation on both achievement scores and multicultural understandings between groups (Kozol, 2005). How much race matters has been a topic of debate for decades. That some teachers hold low expectations for minority students is likely, given that school mirrors society. Whether the way some minority students are treated at school is a reflection of racism or a result of some students behaving poorly in school, is questionable (Evans, 2005).

Broad economics affect the achievement gap as well. During the Clinton administration, when unemployment was at an all time low, the achievement gap narrowed. When unemployment rose again, so did the gap. Similar decline in the achievement gap was noted by the RAND Corporation who calculated that 54% of the reduction between 1972 and 1982 was attributable to increased family income and higher educational attainment of parents (Viadero, 2000).

Federal, state, and district educational policies also affect the achievement gap. No Child Left Behind (NCLB), well intentioned as it appears to be, may have clauses that reduce the likelihood for successful test scores of some special education, English language learners, and other at-risk students (McLaughlin & Thurlow, 2003; See Thurlow & Thompson, 2003 for analysis of NCLB law as related to Special Education). English as a Second Language (ESL) students are rarely tested in their home languages. NCLB allows a limited percentage of special education students to receive special accommodations in testing. Some schools have a higher percentage of special education students than the percentage allowed accommodations under NCLB, thus some students in need do not receive accommodations.

Second language learners are known to need five to seven years to become academically proficient in the target language (Parsons & Osborn, 2003). Testing academic achievement in the second language before language proficiency occurs, therefore, presents a skewed picture. Some language acquisition issues have been misdiagnosed as special education issues, leading to overrepresentation of ESL students in special education classes. Conversely, a court decision in *Diana v. California State Board of Education* requires non-English speaking students to be tested in their first language. The excessive cost of this practice has led some districts to forgo special education placement of second language students. This sometimes leads to the problem of second language learners not getting the special education assistance they need.

On the district level, financial support (Lashway, 2003), class size (Stockard & Mayberry, 1991), alternative education programs (Hamilton, 1984; Alder & Brown, 1999), after school tutorials and enrichment activities (Lumsden, 2003), tracking (Burris

& Welner, 2005), and commitment to ongoing professional development (Kelleher, 2003) affect the achievement gap. Inequities in school funding persist despite the revelations of *Savage Inequalities* (See Kozol, 1991). Policies that provide technical support in the form of specialized training for principals, curriculum specialists concentrated in low performing schools, and allocation of resources earmarked toward instructional areas to support academic achievement rather than administration have strong support in the research (Lashway, 2003). Finally, providing a safe educational environment through policies that enable school site personnel to build a learning community characterized by positive peer relations is essential to improving student achievement and motivation to learn (Osterman, 2003; Marzano, 2000; Sprague, 2000).

In response to studies that note a correlation between the number of higher level mathematics courses taken by high school minorities and the likelihood of college completion, many districts or state departments of education have extended the number of required upper level math courses needed for graduation (Singham, 2003). Though this may assist some students who are college bound, it might be a factor in pushing others out of school prematurely. At least one district responded to that possibility by detracking and allowing students across all levels to enroll in advanced mathematics and science courses (Burris & Welner, 2005). Hamilton (1984) makes the case that vocational training, rather than being eliminated in favor of academic tracks, could be used as a vehicle for increasing academic skills by making their relevance more concrete for students attracted to vocational education experiences.

Across the country, many districts have larger sites for middle and high schools than the research recommends for the support of student learning. Two important

systemic changes have been shown to effectively respond to this dilemma. The first comes from the recommendations of the Carnegie report that served as the basis for Turning Points (1989), the theoretical map for governing middle schools. Middle school teams are usually composed of four teachers in required courses who are responsible for the same 125 students. These smaller communities of learners within a larger school context, combined with faculty trained to collaborate on academic and behavioral matters help build a needed sense of belonging for students. The addition of student/teacher collaboration in building team spirit enhances the overall school climate. The combined full implementation of keeping team sizes under 125:4, maintaining shared planning periods for team teachers, encouraging a team esprit de corps, and staff development in collaboration and team work have been shown to dramatically impact student learning, even in low income schools (Felner, et al., 1997; Carnegie Council on Adolescent Development, 1989).

Secondly, large high schools can achieve some of the small school community effects by creating cohorts of students with similar interests and dedicating cohorts of teachers to work with those groups. For example, Monroe High School in Los Angeles is a year round school serving over 3,500 students. Monroe has student cohorts in Law Enforcement, Law, Fine Arts, Medicine, and Technology. When teachers are assigned cohorts they teach the prescribed curriculum with an eye toward relating their discipline to the umbrella field of the cohort. Though staffing cannot always fully dedicate faculty to a single cohort, every effort is made to limit the scope of teacher planning responsibilities (Elam, 1998).

Schools and Communities

Because so many school districts include schools across the SES spectrum, the community level, for the purposes of this report, refers to individual school sites, neighborhoods, and locally sited businesses. Again, high concentrations of unemployment, underemployment, and poverty bear a high correlation to low performing schools and the achievement gap statistics (Lashway, 2003).

That pockets of low SES communities manage to perform well academically has enabled research, over time, to produce data that inform best practice for reform in less productive settings. Perhaps best known is the Effective Schools research (See Marzano, 2000; Edmonds, 1979). According to the Effective Schools research, one key in establishing productive schools is leadership that promotes a safe and orderly learning environment throughout the site. Routines, schedules and master calendars are established and kept. Discipline structures that provide for in house suspension and straightforward, matter of fact consequences are arranged. Rules and consequences are known by all stakeholders and infractions are answered quickly. Students are told the reasons for penalties and see rules as fair. Behavior is a primary focus.

Marzano (2000) also reported that good school leadership works with the entire staff to ensure high expectations for all students and supports faculty in their efforts through securing adequate resources. Securing adequate resources is sometimes a matter of grant writing, politics with the district, or working with local businesses. After school programs for struggling students are maintained and staff development is ongoing.

In the high achieving, low income effective schools, academics are stressed as the primary purpose of schooling (Marzano, 2000). Both student and teacher excellence and

growth are recognized and rewarded. Teachers are involved in ongoing improvement and collaboration, often through analyzing student data and other collaborative work that focuses on student learning. Immediate feedback for students and teachers is important. Class time is respected by minimizing interruptions and adhering to timely schedules. Student pull outs are limited, as are announcements.

Effective schools group students to ensure effective instruction (Edmonds, 1979). Heterogeneous grouping in required classes and an absence of tracking were found to increase student achievement. Avoiding under-placement of students was also typical in effective schools, as was a low student teacher ratio.

Parents of students in high performance, low SES schools in the Effective Schools research findings were presented with various options for their involvement (Edmonds, 1979). Minimally, parents are asked to monitor student progress through report cards and homework completion. Handbooks are helpful. Lines of communication are established and known by all involved. The section on the role of the family further delineates parental involvement.

More recently, Lashway (2003) has reviewed the research for the qualities of principals who have been involved in turning around low performing schools. Those studies show five key characteristics of effective principals. The first important characteristic is that an effective principal needs to be a high energy, hands-on individual. The principal needs to provide focused and ongoing professional development that supports teachers' implementation of the new strategies for instruction. Third, effective principals attend to organizing data-driven, continual assessment analyzed with faculty involvement and an eye toward improving student learning. Lashway's (2003) review

also noted that flexible grouping for students to facilitate appropriate levels of challenge has been found to assist in academic growth for students. Finally, developing systems that allow for immediate intervention in assisting struggling students is cited.

Teacher qualities, focused learning time, parental involvement, small learning communities, and above all literacy initiatives were found to be the fundamental framework for ensuring that all middle and high school students achieve excellence in their education (Joftus, 2002).

The kinds of neighborhoods students live in play an important role in their motivation to learn (Ogbu & Simons, 1998). Students who live in rural or urban communities where unemployment is high, salaries are low, and who see people with high school diplomas doing poorly, sometimes conclude that schooling is not relevant to improving their lives. The role of peer relations will be discussed in the section on student motivation.

Family

The institution of the family remains a primary influence on child development. Both academic and social developments are enhanced when parents are involved with schools (Liontos, 1991). We have known for some time that a great deal of the variance in student learning can be attributed to the student's experience of two parents at home who support self regulation and persistence in an atmosphere where students feel secure and intellectually stimulated. These parents limit television, monitor homework, and require school attendance (Barton & Coley, 1992).

Economic and time constraints can be a hindrance. Families living in poverty sometimes have more than one job and finding time to involve themselves in school

activities is difficult. Some schools set meeting times on Saturdays or other hours that are outside of the school day to meet with parents. Other schools have moved toward full service community schools for parents and students that may include working with health and welfare agencies, child care services, GED classes, or parent training workshops (Elam, 1998).

Research shows that most parents of at-risk children "care deeply about their children's education and want to know how to help" (Liontos, 1991, p. 4; Durham Public Schools, 2002). Above all, parents from all backgrounds need to feel welcomed and an integral part of the school community. Parents of at risk students may have feelings of inadequacy that stem, in part, from their own school experiences (Liontos, 1991). Focusing on the strengths of the family and valuing what individuals have to offer toward the student's development helps create warmth and respect between the home and school. Openness toward cultural differences and the various forms legitimate family life can take is also important in building these relationships.

Liontos (1991) recommends holding initial meetings off the school grounds and making the event something fun. Providing for interpreters, transportation, and child care will assist with attendance and let parents know you understand their needs. The staff needs thoughtful preparation so that everyone feels welcomed and options for parental involvement in the future are simplified and accessible. Meaningful options for parental involvement in decision making need to be included.

Though their current system included programs for improving student reading and math as well as various alternative education settings for special cases (from long term suspensions to partnerships with businesses and universities) Durham Public Schools

(2002) created a task force that cited parental involvement as their top priority in addressing the achievement gap. Below, the report from that task force notes the six National Standards for Parent/Family Involvement Programs.

> Standard 1: Communicating – Communication between home and school is regular, two-way, and meaningful.
> Standard 2: Parenting – Parenting skills are promoted and supported.
> Standard 3: Student Learning – Parents play an integral role in assisting student learning.
> Standard 4: Volunteering – Parents are welcome in the school, and their support and assistance are sought.
> Standard 6: Collaborating with Community – Community resources are used to strengthen schools, families, and student learning.
> (p. 10)

Respect for the culture and values of Hispanic, African, and Native American families is of particular significance to closing the achievement gap and working with parents. From informal small talk to understanding ethnic and racial economic and political factors that may affect families and the school are important in building comfortable and warm relationships between the home and school (Scribner & Scribner, 2001).

Classroom

The two primary areas of focus in the classroom are the students and the teachers. The first facet of this section will examine the achievement gap literature as it relates to teacher quality and instructional strategies. Secondly, this section will examine the literature on low performing students' attitudes toward learning.

Teachers and Instructional Strategies

According to several studies (Darling-Hammond, 2000; Ferguson, 1991) 40% to 60% of the variance in student test scores can be attributed to teacher qualifications. Ferguson's (1991) study analyzed nearly a thousand school districts and controlled for

SES. Low SES urban and rural schools are harder to staff and have a higher percentage of teachers who have not been fully certified as educators, or who have not been certified in the subject they teach. Further, less experienced teachers are often assigned the low level classes in their first years of teaching.

The *No Child Left Behind Act of 2001* insists on highly qualified teachers in every classroom. The definition for what constitutes quality, however, has been left in the hands of individual states. While some states have managed to maintain high standards for quality teachers, others are struggling to keep warm bodies in the classroom and train new teachers on the job. As Art Wise, president of the National Counsel for the Accreditation of Teacher Education (NCATE) pointed out at a speech given at Virginia Commonwealth University (2004), education is the only field where, when there is a personnel shortage, instead of raising salaries, lower standards are applied.

Again, on the classroom level the Effective Schools research of the 1980s lends a broad brush to what many agree constitutes quality teaching in high poverty schools (Edmunds, 1979). According to that body of research, effective teachers are guided by a preplanned curriculum and clearly inform students of the objectives and what is expected from them. Teachers hold high expectations for students and provide the necessary scaffolding to help students succeed. Students are given challenging, yet doable tasks that are clearly aligned with objectives and assessment. Lessons are geared to give students success opportunities and are clear and focused, without digression. Feedback is immediate, parents are involved, student learning is closely monitored, and students are re-taught when necessary. Positive student teacher relationships are prevalent and

students are well informed about behavior expectations. Routines are well established. Consequences are swift and fair, and incentives reward excellence.

Between the Effective Schools (Edmunds, 1979) research and Ganges Instructional Lesson Line (Joyce, Weil, & Calhoun, 2004), wherein essentially the activity of teaching is sometimes mistakenly reduced only to direct instruction and talking to students, many teacher education programs and school districts have developed check sheet evaluation forms that tend to reward the lecture format in middle and high school instruction. Lecture and recitation can be strong teaching tools, when well implemented, because whole class instruction can cover more material in a relatively short time. Teachers, who feel pressed to do just that under high-stakes accountability systems, can effect a narrowing of the curriculum, moving higher order academic skills into the background (Koretz & Barron, 1999). In fact, when standards are heavily weighted toward facts, rather than concepts and ideas, teachers feel compelled to do more drill work with students. Drill work has its place in education, but without deeper levels of understanding of the material and the rationales for needing to know the various facts, some students are reluctant to engage themselves enough to learn (Good & Brophy, 1996).

There are methods of strengthening lectures. The use of visuals, frequent checking for understanding, the use of more sophisticated questioning techniques, the use of technology like PowerPoint and concept maps, teaching note taking skills, providing advance organizers, and underscoring key concepts can improve student learning. Some of these techniques can provide greater organization and clarity (Borich, 2003). More divergent questions move the teaching style from recitation to discussion, which is a

powerful tool for learning. Pausing for two minutes every five or ten minutes of a lecture to allow students to consolidate their notes has been shown to increase student learning (Bonwell & Eison, 1991).

Marginally achieving students rarely hold information from lecture/recitation formats for more than short term retention, if at all. The reason for the poor retention from lecture/recitation formats may have a number of causes, depending on the particular student. Learning styles, second language issues, ability levels, or a lack of previous knowledge are all factors that can obscure learning. The old adage that, the more you know the easier it is to know more, has merit. Learners of all ages need to be exposed to a broad range of experiences, in and out of the classrooms, in order to make sense of new material Good & Brophy, 1996).

Recent research on effective teaching has clarified what constitutes a good lecture and recitation session in the classroom, but has pointed out the limits of that instruction as well (Borich, 2003; Good & Brophy, 1996; Koretz & Barron, 1999). One limitation is simply that lecture and recitation tend to be overused (Haberman, 1991). Variety in instruction is a pre-requisite in motivational theory and possibilities for helping difficult to reach students is hampered when variety is limited.

Secondly, lecture and recitation often limit student learning to basic recall and comprehension levels of thinking (Haberman, 1991). Students need practice in higher order thinking if the ability to reason is to be fully developed (Beyer, 1998; Haberman, 1991). Beyond the assumption of reason as a paramount educational value, students are more motivated when challenged to think beyond mere memorization, especially when asked to recall facts they may not be able to relate to their own experiences outside of

school. Good teaching, especially when working with marginal students, requires moving from the familiar to the unfamiliar, from the concrete to the abstract, and helping students exercise their more complex intellectual processes in meaningful contexts.

Low performing students, in particular, often need to see the relevance of what they are learning and need concrete experiences and active learning to bring ideas and concepts to life (Bonwell & Eison, 1991; Good & Brophy, 1996). Making explicit ties between the academic subject matter and student lives outside of school has been richly discussed in the literature by authors who focus on a variety of ethnic cultures (See Ladson-Billings, 1992; Banks, 1996). As an example, Ladson-Billings (1992) observed an outstanding teacher who helped her African American students see the relationship between the development of the United States Constitution and the constitutions that frame the organization of the students' churches. Efforts to similarly contextualize the content of the curriculum to the students' lived experiences in the neighborhoods and at home are vital toward fulfilling one of the prerequisites in motivation theory – meaningful learning objectives (Good & Brophy, 1996).

Learning styles may also be a factor in the ability of some students to learn well from lecture/recitation teaching. Lectures require the learner to be an active listener, with strong auditory skills. Only about 30% of the population learns effectively through listening, interestingly about the same as the percentage of Americans who complete college. Due to the range of learning styles present in the typical classroom, trying to tailor lessons for each style is problematic. However, teachers who present opportunities to learn using techniques that have a variety of learning styles have found that they can

touch on students' strengths while building up students' weaker styles of learning (Alder, 2003).

Differentiating instruction (Tomlinson, 1995) is another widely discussed method for assuring teaching across learning styles. Differentiated instruction has three primary benefits: Teaching directly to a student's ability level, teaching and assessing to their learning style strengths, and potentially applying Howard Gardner's theory of multiple intelligences to the classroom (Gardner, 1993).

Active learning is an umbrella term for a range of instructional strategies that support motivation to learn through the students' active engagement. Active learning can take the form of dialogue with the teacher, cooperative learning, other small group formats, discussion, role play, debate, problem-based instruction, group presentations or dramatizations, simulations, peer teaching, and a host of other activities. One of the primary facets of active learning is that it is highly interactive (Bonwell & Eison, 1991). To be actively involved, under the term active learning, students are utilizing high-order thinking skills as suggested by Bloom's levels of analysis, synthesis, and evaluation (Good & Brophy, 1996).

Each of the active learning strategies listed above have particular components that need to be adhered to for effective implementation with students. More mature students do not have the same structural demands as less mature students. As an example, college level students can be asked to organize themselves into cooperative groups. They will usually divide the work into equal parts, discuss the assignment, ask for clarity as it is needed, and so forth. Middle and high school students tend to need the teacher to present their cooperative venture more clearly, always adhering to the basic facets of cooperative

learning: Heterogeneous grouping, face to face interaction, equality of work load, individual accountability, and shared goals. When cooperative groups do not function well, it is often a matter of students needing to be explicitly taught the required social skills, like active listening, consensus taking, leadership, and conflict management. The more the students understand the group process itself, the greater likelihood of the group performing productively. Therefore, establishing a system for students to evaluate and improve their work as a cooperative group is necessary. Finally, teachers must monitor the group's process all along the way. Active learning also has been shown to increase the motivation of average learners in middle schools (Bonwell & Eison, 1991).

Literacy and writing across the curriculum has been widely supported as a necessary component when attending to closing the achievement gap (ERIC Clearinghouse, 1997; Duttweiler, 1995; Risinger, 1987). When the elements of the writing process (planning, revising, and editing) are practiced in assignments that stimulate higher level thinking, students' critical thinking skills are also enhanced. Literacy development is particularly increased when students and teachers are involved in purposeful conversation about the subject matter (ERIC Clearinghouse, 1997).

Studies also suggest that the joint production of learning between teachers and students improves learning (ERIC Clearinghouse, 1997). Joint productive learning activities involve teachers and students in solving problems together toward a common goal or a common product. The dialogue inherent in this kind of learning process also produces more equitable power relations and in that way assists students in accepting more responsibility for their own learning (Calderon, (1997). Collaborative learning processes help establish trust, respect, and mutual caring, particularly important

characteristics of student teacher relationships for many marginalized students, as we will see in the next section.

Vojnovich (1997) reports on a group of teachers in Chicago who noted that their students exhibited a lot of off task behavior, low participation, and trouble processing information. These issues were especially evident when students were studying content that had no clear link to their lives and that was highly fact oriented. Student engagement increased when teachers developed lessons that were oriented toward critical thinking tasks that utilized the factual content, organized cooperative learning, and required reflective journals that increased meta-cognition.

Students who are presented with opportunities to work in groups that accept diversity, to self-evaluate their work, who perceive their work as personally significant learning experiences, and who are assisted in understanding mistakes as a natural part of the learning process have been shown to increase their motivation to learn (Mizelle, 1993).

The best teachers understand how to motivate and even inspire students. Knapp and others (1995) beautifully describe the differences in instructional delivery in math, writing, and reading, interactions with students, incorporating diversity, and classroom management and team building in their book *Teaching for Meaning in High-Poverty Classrooms.*

Students

Three studies underscore the very human reactions to personal and historical influences that can negatively shape people's behavior and academic performance. John Ogbu's (Ogbu & Simons, 1998) seminal work on minority students' attitudes toward

schooling helps us understand more clearly some of the socio-political-historical-cultural influences of learning. Further, Ogbu's work (Ogbu & Simons, 1998) reminds us that these influences are not limited to American students, but are an international phenomenon. Ogbu distinguishes between voluntary and involuntary minorities, in an historical sense. Voluntary minorities are those who come into a country for political, social, or economic opportunities. Voluntary minorities tend to assimilate relatively quickly into the economic mainstream of the host countries. Involuntary minorities have a group history of being either colonized internally or externally, or have been enslaved by the host country. These involuntary minorities, African, Hispanic, and Native Americans in the United States, tend to assimilate economically at a slower pace. They also tend to perform less well educationally than voluntary minorities and the dominant groups of citizens. As an example of the international case, Ogbu notes that Korean students in Japan do less well than their Japanese counterparts in Japanese based schools. The involuntary status of Koreans in Japan stems from Japanese colonization of Korea in the late 1800s.

Paulo Freire (1970) noticed in his literacy work with Brazilian peasants that after being belittled throughout their lives by the bosses and land owners, the peasants developed an inner voice that mimicked that ridicule in a self-demeaning fashion. Arguments and fights were frequent between the peasants. Though Freire's work was with adults, it relates to the notion internalizing feedback as a human phenomenon, whatever one's age.

Ray Rist's (1970) seminal work in expectation theory discussed a similar phenomenon in a kindergarten class wherein the students were initially ability grouped,

not using test scores, but by what the teacher knew about them after the first day of school: whether they spoke standard English, whether their personal appearance and hygiene was acceptable, whether they were on free or reduced lunches, and whether the teacher had taught an older sibling. The teacher arranged the groups so that the top group sat nearest to her, then the middle group, then the low group. She was observed as being polite in interactions with the high group, less so with the middle group, and harsh with the lower group. The high group was observed to pick on the middle and low groups; the middle group picked on the low group; and the low group picked on each other. The test scores, when they became available, did not support ability grouping for that class at all; there wasn't a standard deviation of difference between any of the students. In fact, one of the highest scored students was in the lowest group and one of the lowest scoring students was in the high group. Sadly, the teacher never even reviewed the test scores and when the year was over, the first grade teacher organized ability groups based solely on the kindergarten teacher's recommendation. Further, student academic performance mirrored the ability grouping, not their true potential. Beyond the ability groups being influenced by the teacher's biased expectations for these students, the students were then socialized to expect less of themselves.

Failure syndrome research (Good & Brophy, 1996) produced similar pictures to those of the studies above. Students need to feel valued and capable if they are to put forth enough sustained effort to learn. Students who feel respected and cared for are less likely to cause serious behavior problems in school. Students who have had successful academic experiences are more likely to exert themselves in tackling more challenging academic work. Breaking assignments into smaller components makes them seem less

overwhelming and encourages students to finish work (Wong, 1998). Further, students who are taught the value of rehearsal, revision, and excellence, are more likely to produce quality work (Glasser, 1997).

Following Nodding's (1992) groundbreaking work in *The Challenge to Care in Schools*, research was conducted in urban and suburban schools (Alder, 2002) to more clearly delineate student perceptions of how teachers demonstrate care toward them. One finding was that urban students are more likely to see teachers as caring when they are clearly in control of a class and demand high levels of performance from their students. Suburban students are more likely to see teachers as caring when they are less strict in enforcing rules and less harsh in serving penalties. Both urban and suburban students perceived teachers as caring when the teachers provided a sense of Personalized Leadership (Alder, 2002) in their interactions with their students. Personalized Leadership is the guidance and direction that can only be accomplished when teachers know their students well and have a vision for them that may be more positive than what the students can currently see of themselves, or than the students' current behavior may indicate. McMillan and Reed (1994) have also noted the need for caring adults, including teachers, as a primary factor in the development of resiliency in at risk students. Resiliency is the ability to thrive, despite a convergence of factors, like single parent homes and poverty, which tend to hinder academic success. Students in the McMillan and Reed study (1994) cited their caring relationships with significant adults, including teachers, as key in their resilience.

That some learners, particularly minorities, need a more personal relationship with teachers than other learners, has been known since the advent of field independent

versus field dependent learning styles theory (1979). African and Hispanic American students tend to be field dependent, which means their learning style demands include needing to know the teacher as a person, not just an authority figure, or just the teacher. A caution here: Learning styles vary within groups as much as between groups, so not all of any ethnic or racial groups share the same styles of learning (Alder, 2003).

Field dependent learners also need a global overview for new learning. Ausubel's (Joyce, Weil, & Calhoun, 2004) advance organizer model of instruction is a well researched tool for ensuring more global foundations are laid prior to the introduction of new material. Advance organizers help learners have an umbrella concept on which to hang new ideas, concepts, and facts.

Literature on early adolescent psychology was vital in the development of *Turning Points* (Carnegie, 1989) and the middle school model previously discussed (Felner, et al, 1995). Eric Erikson (Stevenson, 2002) describes early adolescence as a period of tremendous change, variability, and growth. Early adolescents move back and forth between needing dependence and independence, both in their personal growth and their intellectual growth. How they see themselves and their relationships to the world undergo serious reconsideration. They need experiences that support a belief that they are becoming increasingly competent and they need to be recognized for their accomplishments. Because they are experiencing a time of great introspection, they can be subject to tremendous self-doubt. Coupled with the variability of this age group, ongoing and socially-sanctioned experiences with success are vital.

Stevenson (2002) reminds us that the developmental growth in early adolescents is not tied to age or grade level, but idiosyncratic and unpredictable. With this in mind,

there is an imperative to teach early adolescents in ways that are attentive to not only what we teach and how we teach it, but to the developmental readiness of the actual students in our classes.

Overall, both early adolescents and adolescents are constructing their personal identities in what will culminate in long lasting images of themselves (Stevenson, 2002). Elkind's (Stevenson, 2002) study in adolescent development reminds us that constructive and positive feedback from parents, teachers, and other authority figures carry greater weight in the development of healthy, fully integrated personalities than the press given to peer influences may lead people to know.

Motivation Theory

Motivation to learn is sometimes associated with Maslow's hierarchy of needs (Good & Brophy, 1996). Maslow noted that people have physiological needs for food, clothing, shelter and safety and that these need to be satisfied before psychological growth can occur. Needs for love, belonging, esteem or recognition, and self actualization followed from the first needs. Glasser (1997) agreed with Maslow's initial human needs, but delineated students' additional needs in the categories of competence, power, belonging, and fun. Fredrick Herzberg (1979) wrote about motivation in the work place as being tied to satisfaction in the areas of achievement, recognition, the work itself, responsibility, and advancement. Low motivation in students can be due to any of these needs not being met (Bartscher, 1995).

Good and Brophy (1996) developed four prerequisites for developing motivation to learn. They are: (a) a safe and orderly learning environment; (b) meaningful objectives; (c) variety in instruction; and (d) levels of challenge that are appropriate for

each student. All other motivational techniques flow from having established these requirements in one's classroom.

Expectancy times value theory (Good & Brophy, 1996) states that students will engage in learning to the extent that they expect to succeed times the benefit they see in the future pay off of the learning. For some students, that the material will be on the test, or help with their SAT scores, or produce a better end of term grade is enough of a benefit to exert great effort. For others, whose likelihood of going to college is slim, or who are not attached to grades, or who don't believe they will pass the tests, these incentives do not work.

Attribution theory (Kimmel & Kilbride (1991) notes the tendencies of learners to attribute learning to either luck or their own efforts, including insufficient instruction, and improper strategies. Students who see the link between effort and learning are usually more successful academically and more likely to sustain effort over time. Students who are given encouragement, immediate feedback, and who are given challenging material appropriate to their current development can begin to understand the links between their effort and learning more clearly. Locus of control (Galbraith & Alexander, 2005) is closely associated with attribution theory, but has to do with the learner's perception of whether their success is externally or internally located. Students can develop greater internal locus of control when they are asked to keep a grid of their grades, for example, so that the end of term outcomes are more clearly a result of accumulated work evaluations rather than personal teacher whims.

Statement of the Problem

Interestingly, some researchers give school as a whole less than 25% of the variance in the achievement gap, owing the time out of school as the primary culprit (Evans, 2005). Others pay homage to upper level math classes at 60% (Singham, 2003), parental involvement (Liontos, 1991), class size (Stockard & Mayberry, 1991), or qualified teachers as responsible for 60% of the variance in student learning (Darling-Hammond, 2000). There is little doubt that all of these are important players in closing the achievement gap. There is also little doubt that the variances would add up more clearly if a single, more comprehensive methodology were applied. There is no doubt, however, that classroom teachers have little to no control of students' SES, after school lives, and home life, and that students who are not actively engaged in learning will not learn.

This study will clarify how student-teacher relationships, motivational strategies, and instructional activities may interact to increase student motivation to learn. This includes addressing the traditional achievement gaps, as well as focusing attention on all students who do not perform at their true potential. The research questions are as follows:

1. To what extent does school leadership affect student outcomes?
2. What teaching skills are needed by both teachers and teacher candidates to help students reach their academic potential?
3. To what extent are teacher expectations a factor in maintaining the achievement gap?
4. What do students need, from an instructional perspective, to perform at higher levels?

5. To what extent is motivation a factor when it comes to students reaching their academic potential?

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